are shorter than half of the tube of the corolla. According to the map of vegetation types of Ecuador published by G. Harling (1979), the distribution of this species is found in the "lowland and lower montane rain forest" zones at an altitude of 100–2500 m.

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STUDIES IN THE CAPPARIDACEAE XV: *CAPPARIS PANAMENSIS*, N. SP.[1]

Capparis panamensis Iltis, **sp. nov.** TYPE: Panama, Prov. of Panamá, El Llano-Cartí Road, 12 km from Inter-American highway, wet forest 350 m alt. 15 Feb. 1975 (fl). *Mori, Kallunki & A. Gentry 4632* (WIS, holotype; MO, US, isotypes).—FIG. 1–2.

Arbores parvae, stellato-pubescentes; similis *Capparis pittieri*, sed foliis oblongo-ellipticis coriaceis perennibusque, subtus flavovirentibus, inflorescentibus laxioribus grandioribusque, et floribus grandioribus; sylvae tropicae Panamae endemica.

Small *trees* 5–6 m tall. *Branches* with ± protruding leaf scar bases, the youngest, leaf-bearing ones rusty-brown stellate-pubescent, 2–3 mm in diameter, becoming in the second year dark red-brown and verrucose and 3–6 mm or more in diameter.

Leaves alternate, spaced 1–3 cm apart, 4–7 on each branchlet, *oblong-elliptic* (rarely slightly oblanceolate-elliptic), broadly acute to abruptly acuminate and/or rounded at apex, broadly cuneate to rounded at base, (5–)8–17 cm long, (2–)4–6(–8) cm broad, stellate-pubescent on both sides when young, becoming glabrous and somewhat varnished, evergreen and *stiffly coriaceous,* with quite entire and slightly revolute margins, in herbarium material *dark green above, markedly yellow-green beneath*; main lateral nerves 5–8, the midrib and lateral nerve network prominent on both sides, but the smaller veins buried in the thick blade tissue. *Petioles 8–15(–24) mm long.*

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[1] I thank Alwyn Gentry for his photograph, and Duane Kolterman for the drawing of the distribution map.

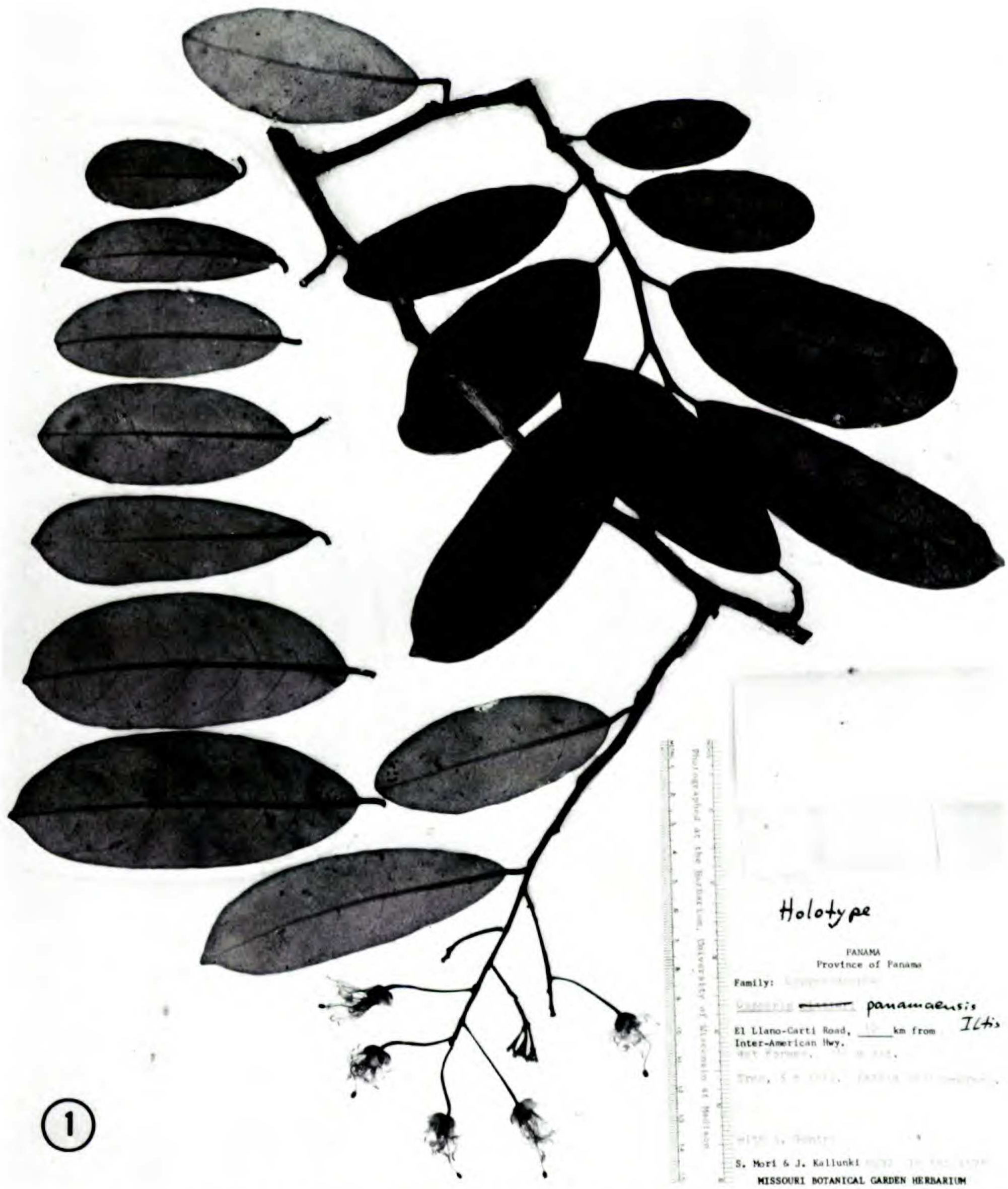
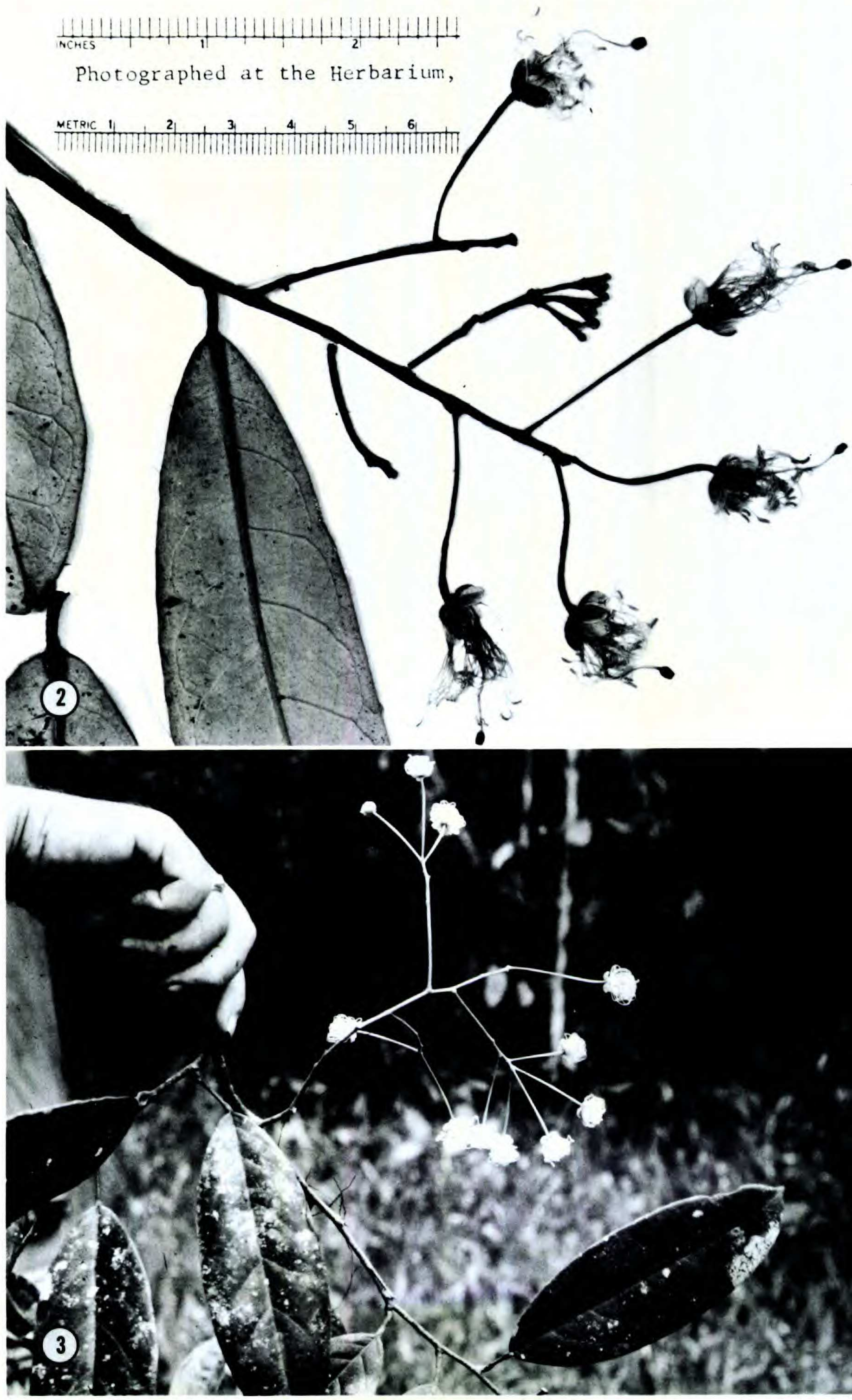


FIGURE 1. Holotype of *Capparis panamensis* Iltis, *Mori, Kallunki & Gentry 4632* (WIS).

Inflorescences compound, terminal on lateral leafy branches, with up to 3–11 flowers in bloom at one time, these long-pedicellate, hence the inflorescences *very open,* 8–20 cm wide and long, *densely rusty-stellate* throughout, bracteate, but bracts minute (1–1.2 mm long, oblong, densely rusty-stellate) and caducous, *the blooming of the 1–8 racemes staggered,* the terminal (central) raceme [with a mature central axis (5–)7–14 cm long] blooming first, the lateral (then still in very young bud and only 2–4 cm long) ending in 1–3 tightly clustered corymbiform racemes with many crowded small (1–2 mm) buds, their axes at anthesis eventually elongating (to 6 cm). Pedicels in young inflorescences very short (2–3 mm),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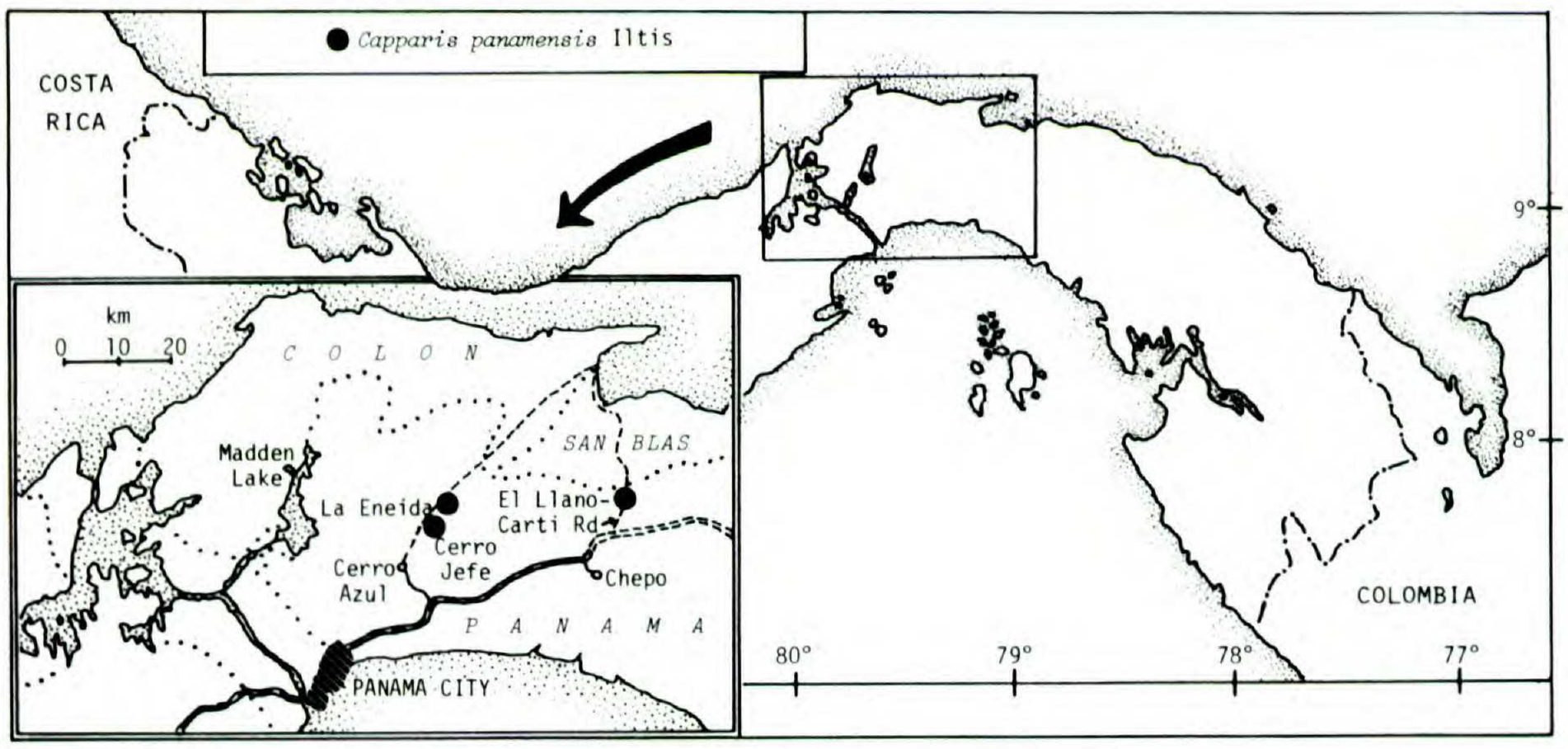

FIGURE 4. Geographic distribution of *Capparis panamensis* Iltis.

greatly elongating when approaching flowering, at anthesis 25–35 mm or more long, very slender; mature buds 5 mm in diameter, with closed aestivation (sepals completely enclosing petals and these in turn the stamens).

Flowers actinomorphic, the sepals horizontal-divergent, the petals slightly ascending. *Sepals imbricate,* in two series, the ab- and adaxial ones on the outside and densely rusty pubescent throughout, the lateral pair on the inside and rusty-stellate only on the exposed central band and pale greenish-white-stellate on the overlapped margins, *broadly ovate-cucullate, ascending, acute, 6 mm long, 3.5 mm broad*; hairs stellate, the *center of each stellate complex rusty-red brown,* the ray hairs relatively thick and pale. *Petals yellow-green,* broadly elliptic, acute to broadly acuminate, 6–7 mm long, 3 mm wide, *densely stellate pubescent without, the hairs yellowish-white* throughout, with ray hairs very slender; both sepals and petals glabrous within. *Nectariferous scales* 4, fleshy, borne between and outside of the petal bases in the axils of the sepals, 1.5 mm wide, less than 1 mm high. *Stamens 28–34* (or fewer?), *20–23 mm long, glabrous, tending to curl* into the flower after anthesis (or during the day?; see Fig. 2), borne on a 1.5–2 mm long androgynophore; anthers 2 mm long. *Gynophore 18–23 mm long,* elongating in older flowers to 45 mm; ovary urceolate-truncate, 2–3 mm long, 1.5 mm in diameter, the sessile stigma broadly truncate-concave. *Fruits* unknown, but judging from flowering ovaries evidently spherical or ovoid; young fruiting pedicel 52 mm long; gynophore at least 50 mm long (in *Dressler 4317*).

Distribution: Endemic to Panama, on ridges east of the Panama Canal, at elevations of 350 m, in wet tropical forests.

Additional collections: Panama: Prov. of Panamá: La Eneida, ca. 16 km east of Cerro Azul (Goofy Lake). 5 April 1973, *R. L. Dressler 4317* (MO, photos WIS); Cerro Jefe, *A. Gentry, J. Dwyer & E. Tyson 3495* [photo in WIS from Kodachrome taken by Gentry—our Fig. 2—this specimen not available, perhaps lost in a fire (see below)]. (These two stations are very close to each other.)

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FIGURE 2. Holotype of *Capparis panamensis* Iltis. Close-up of inflorescence.

FIGURE 3. *Capparis panamensis* Iltis. Photograph of *Gentry, Dwyer & Tyson 3495,* from La Eneida, Panama. (Photo, Gentry, from Kodachrome slide.)

This distinctive stellate-pubescent, round-fruited species is closely related to *C. pittieri* Standl., from which it differs by much larger and much more open inflorescences, larger flowers (15 mm vs. 10 mm diameter), shorter (20–23 vs 23–32 mm) but more abundant stamens (28–32 vs 16), and much thicker, leathery, more oblong, more abruptly acuminate or rounded leaves that are characteristically yellow-green beneath. The four nectariferous scales are much like those of *C. pittieri* in size and shape.

This species was first brought to my attention through one of Alwyn Gentry's excellent Kodachrome slides, which I was unable to identify to species, especially since the specimens of that collection were all lost when that expedition's presses caught on fire. Soon, however, Dr. R. L. Dressler sent a specimen that matched the picture; and two years later, the three collectors of the type, all former students of mine, collected material which beautifully matched the photograph of the lost original collection.

It is truly remarkable that still another endemic *Capparis* has appeared from the Isthmus of Panama, in addition to the incredible *C. mirifica* Standl. and the ecologically remarkable "detritophilous" *C. antonensis* Woods., which, like *C. panamensis* and *C. pittieri,* grow near the El Llano-Cartí road, northeast and east-northeast of Panama City and close to the Panama Canal, one of the supposedly best collected areas of the Neotropics.

Like so many others, the species is exceedingly rare and evidently threatened with extinction.

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ON THE TRUE IDENTITY OF *LAGENANTHUS PARVIFLORUS* EWAN (GENTIANACEAE)

During the last three years a team of several students and myself has been engaged in a revision of the genus *Lisianthius* s.l. (*Adenolisianthus, Calolisianthus, Chelonanthus, Helia, Irlbachia, Lagenanthus, Lehmanniella, Pagaea, Purdieanthus,* and *Symbolanthus*). Dr. R. E. Weaver (Arnold Arboretum) is involved in revisional work of the two remaining genera *Lisianthius* s.s. and *Macrocarpaea.*

Recently we started studying *Lagenanthus,* a genus that had previously been revised by J. Ewan (1948). Ewan distinguished in his publication two species in this genus: 1. *Lagenanthus princeps,* a very spectacular species with 12–14 cm long, slightly inflated flowers. It is restricted to montane forests in Colombia and W. Venezuela, at elevations of 2500–3000 m. 2. *Lagenanthus parviflorus,* a species that occurs in Panama (hills N of El Valle de Antón, prov. Coclé, alt. 1000 m). In the original description Ewan remarked: "The discovery of this second species of *Lagenanthus* is of phytogeographic interest for it points to an